

CLAIM SET AS AMENDED

1. (Currently Amended) A method of assisting in the design of a vehicular suspension to generate a simulation model for a suspension using a CAD system, comprising the steps of:

indicating a suspension to be designed;

opening a specification value entering window for entering specification values corresponding to the indicated suspension predetermined definition points thereof;

opening a first analytic window for displaying a first analytic model of the indicated suspension and the predetermined definition points thereof;

opening a second analytic window for displaying a second analytic model of the indicated suspension and the predetermined definition points thereof;

entering the specification values corresponding to the predetermined definition points of the indicated suspension in any one of said specification value entering window, said first analytic window, or said second analytic window;

reflecting the specification values associated with the predetermined definition points that have been entered in ~~the~~ one of the windows so that the specification values are associated with the predetermined definition points as shown in each of the two other windows; and

generating a simulation model based on the specification values at the predetermined definition points.

2-4. (Cancelled)

5. (Previously Presented) The method of assisting in the design of a vehicular suspension according to claim 1, wherein the step of indicating further comprises the step of indicating a drive system of a vehicle to which the suspension is applied.

6. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 5, wherein said step of opening said specification value entering window further comprises the steps of:

entering three-dimensional coordinates into a kinematics coordinate area as the specification values at the predetermined definition points of a three-dimensional model; and

entering lengths and angles of mechanisms of the indicated suspension into a geometry area as the specification values,

the kinematics coordinate area and the geometry area being arranged side by side, and
the kinematics coordinate area including a listing of the predetermined definition
points, and the geometry area including a listing of the lengths and the angles of the
mechanisms.

7. (Previously Presented) The method of assisting in the design of a vehicular suspension according to claim 1, wherein said step of opening the first analytic window for displaying the first analytic model further comprises the step of:

analyzing whether there is an interference between various parts of the indicated suspension, the first analytic model being an interference analytic model.

8. (Previously Presented) The method of assisting in the design of a vehicular suspension according to claim 7, wherein said step of opening the second analytic window for displaying the second analytic model further comprises the step of:

displaying compression and expansion strokes of front and rear wheels of a vehicle, and strokes of the front and rear wheels when the vehicle is occupied by passengers and not occupied by passengers, the second analytic model being a dynamic characteristic model.

9. (Currently Amended) An apparatus for assisting in the design of a vehicular suspension to generate a simulation model for a suspension using a CAD system, comprising:

means for indicating a suspension to be designed;

means for opening a specification value entering window for entering specification values corresponding to the indicated suspension predetermined definition points thereof;

means for opening a first analytic window for displaying a first analytic model of the indicated suspension and the predetermined definition points thereof;

means for opening a second analytic window for displaying a second analytic model of the indicated suspension and the predetermined definition points thereof;

means for entering specification values corresponding to the predetermined definition points of the indicated suspension in any one of said specification value entering window, said first analytic window, or said second analytic window;

means for reflecting the specification values associated with the predetermined reference points that have been entered in the one of the windows so that the specification values are associated with the predetermined definition points as shown in each of the two other windows; and

means for generating a simulation model based on the specification values at the predetermined definition points.

10-12. (Cancelled)

13. (Previously Presented) The apparatus for assisting in the design of a vehicular suspension according to claim 9, wherein said means for indicating further comprises means for indicating a drive system of a vehicle to which the suspension is applied.

14. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 13, wherein said means for opening said specification value entering window further comprises:

means for entering three-dimensional coordinates as the specification values at the predetermined definition points of a three-dimensional model includes a kinematics coordinate area; and

means for entering lengths and angles of mechanisms of the indicated suspension as specification values includes a geometry area,

the kinematics coordinate area and the geometry area being arranged side by side, and the kinematics coordinate area including a listing of the predetermined definition points, and the geometry area including a listing of the lengths and the angles of the mechanisms.

15. (Previously Presented) The apparatus for assisting in the design of a vehicular suspension according to claim 9, wherein said means for opening the first analytic window for displaying a first analytic model further comprises:

means for analyzing whether there is an interference between various parts of the indicated suspension, the first analytic model being an interference analytic model.

16. (Previously Presented) The apparatus for assisting in the design of a vehicular suspension according to claim 15, wherein said means for opening the second analytic window for displaying a second analytic model further comprises:

means for displaying compression and expansion strokes of front and rear wheels of a vehicle, and strokes of the front and rear wheels when the vehicle is occupied by passengers

and not occupied by passengers, the second analytic model being a dynamic characteristic analytic model.

17. (Currently Amended) The method for assisting in the design of a vehicular suspension according to claim 1, further comprising the step of:

highlighting the specification values corresponding to the indicated suspension, and disabling entry of the specification values not corresponding to the indicated suspension.

18. (Currently Amended) The method for assisting in the design of a vehicular suspension according to claim 1, further comprising the steps of:

confirming positions of the predetermined definition points in the first analytic window and the second analytic window, if an entry from the specification value entering window is selected; and displaying the first analytic window and the second analytic window together with the specification value entering window in a same displayed view.

19. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 9, further comprising:

means for highlighting the specification values corresponding to the indicated suspension, and disabling entry of the specification values not corresponding to the indicated suspension.

20. (Currently Amended) The apparatus for assisting in the design of a vehicular suspension according to claim 9, wherein if an entry from the specification value entering window is selected, then an operator confirms positions of the predetermined definition points in the first analytic window and the second analytic window, the first analytic window and the second analytic window being displayed together with the specification value entering window in a same displayed view.

21. (Previously Presented) The method of assisting in the design of a vehicular suspension according to claim 1, wherein the step of entering the specification values in the first analytic model changes the specification values in said specification value entering window and the specification values in the second analytic model.

22. (Previously Presented) The method of assisting in the design of a vehicular suspension according to claim 1, wherein the step of entering the specification values in the first analytic window changes the specification values in said specification value entering window and the specification values in the second analytic window.

23. (Currently Amended) The method of assisting in the design of a vehicular suspension according to claim 1, further comprising the step of entering the specification values in the first analytic window by dragging the predetermined definition points of the

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first analytic model to move spatial coordinates thereof, thereby changing a configuration of the simulation model.